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ABSTRACT OF THE DISCLOSURE

A method and structures for protectively enclosing and sealing optoelectronic modules having emitter or detector diode arrays aligned with optical fiber facets in optoelectronic transmitters and receivers. A non-hermetic enclosure provides mechanical protection of the components during alignment and assembly of the module. A substantially hermetic enclosure provides additional protection of optoelectronic components against airborne contaminants or moisture. The protective enclosures physically encompass the diode array chip with its delicate wire bonds and also provide a liquid containment dam for easier application of resin for protective encapsulation of the diode array chip. Dual resin encapsulation may include a first resin layer chosen for transparency and a harder setting covering layer. These protective variants can be implemented in different combinations offering varying degrees of protection of the optical components.